

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P332898-927

Luminaire Tested: **S124RDIP-S575D365U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332898-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDIP-S575D365U927-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3019.0 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Direct

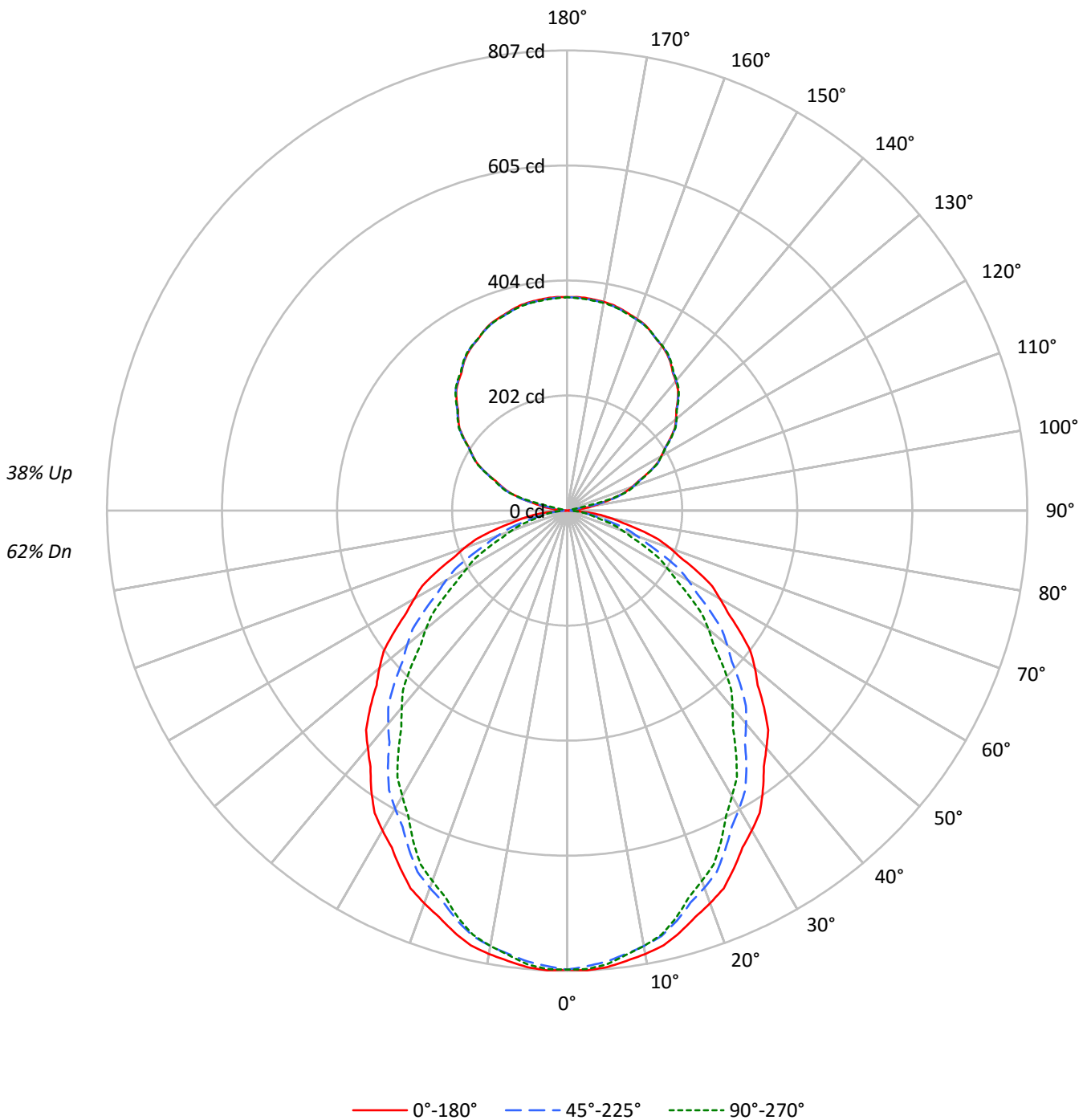
Input Watts (W): 27.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332898-927

CATALOG NUMBER: S124RDIP-S575D365U927-4F0-1E-UDD-F

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	101	96	93	89	94	90	87	84	79	77	75	69	67	66	60	58	57	53
2	92	85	79	73	86	80	74	70	70	66	62	61	58	55	53	51	49	45
3	84	75	67	62	79	70	64	59	62	57	53	54	50	47	47	44	42	38
4	77	66	58	52	72	63	55	50	55	50	45	49	44	41	42	39	36	33
5	71	59	51	45	66	56	49	43	50	44	39	44	39	35	38	35	32	29
6	66	53	45	39	61	50	43	38	45	39	34	40	35	31	35	31	28	25
7	61	48	40	35	57	46	38	33	41	35	31	36	31	28	32	28	25	23
8	56	44	36	31	53	42	35	30	37	31	27	33	28	25	29	25	23	20
9	53	40	33	28	49	38	31	27	34	29	25	31	26	22	27	23	20	18
10	49	37	30	25	46	35	29	24	32	26	22	28	24	20	25	21	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6500	6500	6500
5°	6514	6434	6474
10°	6473	6357	6357
15°	6399	6224	6177
20°	6296	6048	5936
25°	6167	5842	5694
30°	6039	5626	5390
35°	5899	5401	5084
40°	5730	5145	4755
45°	5574	4891	4419
50°	5397	4598	4064
55°	5206	4294	3678
60°	4996	3961	3284
65°	4804	3543	2896
70°	4525	3085	2460
75°	4173	2558	1999
80°	3640	1948	1836
85°	3084	1769	1658



TEST NUMBER: P332898-927

CATALOG NUMBER: S124RDIP-S575D365U927-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	2.5
10°-20°	210.9	7.0
20°-30°	304.5	10.1
30°-40°	345.2	11.4
40°-50°	333.3	11.0
50°-60°	277.2	9.2
60°-70°	191.4	6.3
70°-80°	97.0	3.2
80°-90°	26.0	0.9
90°-100°	12.8	0.4
100°-110°	81.6	2.7
110°-120°	156.1	5.2
120°-130°	198.2	6.6
130°-140°	212.1	7.0
140°-150°	198.3	6.6
150°-160°	159.9	5.3
160°-170°	103.2	3.4
170°-180°	35.6	1.2
0°-30°	591.0	19.6
0°-40°	936.2	31.0
0°-60°	1546.7	51.2
0°-90°	1861.1	61.6
90°-120°	250.6	8.3
90°-150°	859.2	28.5
90°-180°	1158.0	38.4
0°-180°	3019.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	804	801	794	800	799	76
15°	766	760	745	743	739	216
25°	692	680	656	646	639	319
35°	599	578	548	528	516	374
45°	488	465	428	399	387	376
55°	370	344	305	274	261	331
65°	252	224	186	160	152	248
75°	134	111	82	68	64	141
85°	33	22	19	18	18	37
90°	1	4	6	8	8	2
95°	15	6	6	8	8	20
105°	84	86	87	89	80	88
115°	157	158	158	158	158	155
125°	221	222	222	222	223	197
135°	274	274	275	276	276	211
145°	316	317	317	317	318	198
155°	347	347	346	347	347	160
165°	366	365	364	366	364	103
175°	374	373	373	375	372	36
180°	374	374	374	374	374	



TEST NUMBER: P332898-927

CATALOG NUMBER: S124RDIP-S575D365U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	807.1	806.6	806.2	805.7	805.3	804.5	803.3	802.1	800.8	799.6	800.8
5°	803.8	803.3	802.7	802.2	801.7	800.6	798.9	797.3	795.6	794.0	795.4
7.5°	796.5	796.0	795.4	794.9	794.2	792.9	790.8	788.6	786.5	784.3	785.2
10°	789.6	789.0	788.3	787.6	787.0	785.4	782.9	780.4	777.9	775.5	776.0
12.5°	780.8	780.0	779.2	778.4	777.6	775.8	772.9	769.9	767.1	764.1	764.5
15°	765.6	764.4	763.2	761.9	760.7	758.4	754.9	751.5	748.1	744.7	744.4
17.5°	747.3	745.4	743.7	741.9	740.1	737.2	733.1	729.0	724.8	720.7	720.0
20°	732.9	731.2	729.4	727.6	725.8	722.6	718.0	713.3	708.6	704.0	702.9
22.5°	717.2	715.2	713.2	711.1	709.2	705.7	700.7	695.7	690.7	685.7	684.0
25°	692.3	689.8	687.3	684.8	682.4	678.3	672.7	667.1	661.5	655.9	653.6
27.5°	666.1	663.1	660.0	656.9	653.7	649.2	643.2	637.2	631.2	625.2	622.3
30°	647.8	644.4	641.0	637.6	634.2	629.2	622.8	616.4	609.9	603.5	600.1
32.5°	628.7	624.8	620.9	617.0	613.2	607.9	601.3	594.6	588.0	581.3	577.3
35°	598.6	594.2	589.8	585.4	581.1	575.4	568.5	561.7	554.8	548.0	543.4
37.5°	566.4	561.9	557.4	552.9	548.3	542.2	534.6	527.0	519.5	511.9	506.7
40°	543.7	539.2	534.6	530.1	525.6	519.4	511.7	503.8	496.1	488.2	482.4
42.5°	522.0	517.3	512.5	507.8	503.0	496.6	488.5	480.3	472.2	464.1	458.2
45°	488.2	483.2	478.1	473.0	467.9	461.3	453.0	444.9	436.7	428.4	421.7
47.5°	453.4	448.1	442.8	437.6	432.4	425.5	416.9	408.4	399.9	391.3	384.4
50°	429.7	424.3	419.0	413.6	408.3	401.2	392.4	383.7	374.9	366.1	359.3
52.5°	405.5	400.3	395.1	389.8	384.5	377.5	368.4	359.5	350.5	341.5	334.5
55°	369.9	364.4	358.9	353.4	347.9	340.7	331.8	323.0	314.0	305.1	298.0
57.5°	334.6	328.9	323.2	317.5	311.8	304.6	295.8	287.0	278.3	269.5	262.3
60°	309.4	304.0	298.5	293.0	287.6	280.4	271.6	262.8	254.1	245.3	238.2
62.5°	286.8	281.1	275.4	269.7	264.0	256.7	247.6	238.7	229.7	220.7	214.1
65°	251.5	245.7	239.7	233.9	227.9	220.6	211.8	203.1	194.3	185.5	179.7
67.5°	214.9	209.2	203.6	198.0	192.3	185.4	177.3	169.1	161.1	152.9	147.8
70°	191.7	185.9	180.2	174.4	168.7	161.9	154.1	146.3	138.5	130.7	126.2
72.5°	167.1	161.8	156.6	151.5	146.2	140.0	132.6	125.2	117.8	110.4	106.6
75°	133.8	128.7	123.7	118.6	113.5	107.7	101.3	94.8	88.4	82.0	78.8
77.5°	100.0	95.7	91.4	87.1	82.8	78.0	72.8	67.7	62.4	57.2	55.4
80°	78.3	74.3	70.3	66.4	62.4	58.4	54.3	50.1	46.0	41.9	41.5
82.5°	59.6	55.9	52.3	48.6	45.0	42.0	39.6	37.2	34.9	32.6	32.2
85°	33.3	30.6	27.8	25.0	22.3	20.8	20.4	20.0	19.5	19.1	18.9
87.5°	11.5	10.8	10.1	9.3	8.6	8.2	8.2	8.2	8.2	8.2	8.1
90°	0.9	1.5	2.2	2.9	3.6	4.2	4.7	5.1	5.6	6.2	6.5
92.5°	3.6	3.6	3.6	3.6	3.6	4.0	4.4	4.9	5.5	5.9	6.3
95°	15.4	13.3	11.2	9.0	7.0	5.9	5.9	6.0	6.1	6.2	6.5
97.5°	32.7	34.0	35.3	36.7	37.9	35.2	28.2	21.3	14.3	7.4	7.4
100°	45.9	47.1	48.2	49.3	50.4	46.7	38.1	29.5	20.9	12.4	11.2
102.5°	60.7	61.6	62.3	63.1	64.0	63.8	62.7	61.6	60.4	59.3	47.9
105°	84.3	84.6	85.0	85.4	85.8	86.1	86.4	86.7	87.1	87.4	87.9
107.5°	106.2	106.3	106.5	106.7	106.9	107.2	107.7	108.1	108.4	108.9	109.2
110°	121.0	121.1	121.3	121.5	121.7	122.0	122.3	122.7	123.1	123.5	123.6



TEST NUMBER: P332898-927

CATALOG NUMBER: S124RDIP-S575D365U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	135.3	135.6	135.9	136.3	136.7	136.9	137.0	137.2	137.4	137.6	137.5
115°	157.3	157.6	157.7	157.9	158.1	158.1	158.1	158.0	158.0	157.9	158.0
117.5°	177.2	177.4	177.7	178.0	178.2	178.4	178.6	178.7	178.8	179.0	179.0
120°	190.7	190.9	191.2	191.4	191.6	191.7	191.7	191.6	191.5	191.5	191.6
122.5°	203.2	203.4	203.5	203.7	203.8	203.9	204.0	204.1	204.1	204.3	204.3
125°	221.2	221.4	221.7	221.9	222.2	222.2	222.1	222.0	221.9	221.7	221.9
127.5°	238.2	238.3	238.3	238.4	238.4	238.6	238.9	239.2	239.5	239.8	239.7
130°	249.1	249.2	249.3	249.4	249.5	249.5	249.7	249.9	250.1	250.3	250.3
132.5°	259.3	259.4	259.4	259.6	259.7	259.8	260.1	260.3	260.5	260.8	260.9
135°	274.3	274.3	274.3	274.2	274.1	274.2	274.5	274.7	275.0	275.2	275.4
137.5°	287.7	287.8	287.8	287.8	287.9	288.0	288.3	288.5	288.8	289.1	289.2
140°	296.5	296.6	296.8	296.8	297.0	297.1	297.2	297.4	297.5	297.6	297.8
142.5°	304.4	304.5	304.8	305.0	305.2	305.4	305.5	305.5	305.6	305.7	305.8
145°	316.4	316.6	316.7	317.0	317.1	317.2	317.2	317.2	317.2	317.2	317.3
147.5°	325.9	326.3	326.6	327.0	327.3	327.5	327.4	327.3	327.3	327.3	327.3
150°	332.9	333.1	333.4	333.7	333.9	334.0	333.9	333.8	333.7	333.7	333.7
152.5°	338.7	338.9	339.1	339.3	339.5	339.5	339.5	339.3	339.2	339.1	339.2
155°	346.9	347.0	347.0	347.1	347.1	347.1	346.9	346.7	346.5	346.3	346.6
157.5°	353.8	353.7	353.7	353.6	353.6	353.5	353.3	353.1	352.8	352.7	353.0
160°	357.8	357.6	357.4	357.3	357.0	357.0	356.9	356.8	356.7	356.6	357.0
162.5°	361.4	361.2	360.9	360.7	360.4	360.3	360.2	360.1	360.1	360.0	360.4
165°	365.9	365.6	365.3	365.0	364.6	364.5	364.5	364.5	364.5	364.5	365.0
167.5°	369.5	369.2	368.8	368.5	368.2	368.0	368.0	368.0	367.9	367.9	368.4
170°	371.5	371.1	370.7	370.4	370.0	369.9	369.9	370.0	370.0	370.1	370.6
172.5°	372.9	372.5	372.1	371.8	371.4	371.2	371.3	371.4	371.4	371.5	371.9
175°	374.3	373.9	373.6	373.2	372.8	372.6	372.7	372.8	372.9	372.9	373.5
177.5°	375.0	374.6	374.3	373.9	373.6	373.4	373.6	373.7	373.8	373.8	374.3
180°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3



TEST NUMBER: P332898-927

CATALOG NUMBER: S124RDIP-S575D365U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	802.1	803.3	804.5	805.0	804.9	804.8	804.7	804.6
5°	796.7	798.1	799.5	800.0	799.7	799.5	799.2	798.9
7.5°	786.1	787.0	787.9	788.1	787.7	787.2	786.8	786.3
10°	776.6	777.1	777.7	777.7	777.1	776.6	776.0	775.5
12.5°	764.8	765.1	765.5	765.2	764.5	763.7	763.0	762.2
15°	744.1	743.9	743.5	743.0	742.0	741.0	740.1	739.1
17.5°	719.2	718.4	717.6	716.5	715.1	713.7	712.2	710.7
20°	701.8	700.7	699.6	698.2	696.4	694.6	692.8	691.0
22.5°	682.5	680.8	679.1	677.6	676.1	674.7	673.3	671.8
25°	651.3	648.9	646.6	644.8	643.3	642.0	640.6	639.2
27.5°	619.4	616.6	613.7	611.2	609.3	607.3	605.4	603.4
30°	596.7	593.2	589.8	587.0	584.8	582.6	580.4	578.2
32.5°	573.4	569.4	565.4	562.4	560.3	558.3	556.1	554.1
35°	538.7	534.0	529.4	525.9	523.4	520.9	518.4	515.9
37.5°	501.5	496.3	491.1	487.3	484.7	482.3	479.8	477.4
40°	476.7	471.0	465.2	461.1	458.6	456.1	453.7	451.2
42.5°	452.3	446.5	440.6	436.4	433.8	431.3	428.6	426.1
45°	415.0	408.3	401.6	397.0	394.5	392.1	389.6	387.1
47.5°	377.4	370.4	363.5	358.6	355.9	353.2	350.5	347.8
50°	352.4	345.6	338.7	334.1	331.4	328.8	326.2	323.6
52.5°	327.6	320.6	313.7	308.9	306.1	303.4	300.7	298.0
55°	290.9	283.8	276.6	271.8	269.2	266.6	264.0	261.3
57.5°	255.0	247.8	240.6	236.0	234.0	232.0	230.0	228.1
60°	231.1	223.9	216.8	212.2	210.0	207.8	205.7	203.4
62.5°	207.6	201.0	194.4	190.2	188.5	186.7	185.0	183.2
65°	173.8	167.9	162.0	158.2	156.6	155.0	153.3	151.6
67.5°	142.8	137.7	132.6	129.2	127.4	125.6	123.7	121.9
70°	121.7	117.2	112.6	109.6	108.3	106.9	105.5	104.2
72.5°	102.7	98.9	95.0	92.4	91.2	89.9	88.6	87.4
75°	75.7	72.6	69.4	67.4	66.5	65.8	65.0	64.1
77.5°	53.6	51.7	49.8	48.8	48.6	48.3	48.1	47.8
80°	41.1	40.7	40.2	40.0	39.8	39.7	39.6	39.5
82.5°	31.9	31.6	31.4	31.1	31.0	30.8	30.7	30.6
85°	18.5	18.3	18.0	17.9	17.9	17.9	17.9	17.9
87.5°	8.1	8.0	8.0	8.1	8.2	8.3	8.5	8.6
90°	6.9	7.3	7.7	7.9	8.0	8.2	8.2	8.4
92.5°	6.7	7.1	7.4	7.6	7.7	7.7	7.7	7.8
95°	6.9	7.3	7.7	7.8	7.9	8.0	8.1	8.1
97.5°	7.4	7.5	7.5	7.6	7.7	7.7	7.8	7.8
100°	10.2	9.1	8.1	7.6	7.7	7.7	7.8	7.8
102.5°	36.5	25.1	13.7	8.0	8.0	8.0	8.1	8.1
105°	88.5	89.0	89.6	88.7	86.5	84.3	82.0	79.8
107.5°	109.5	109.7	110.0	110.3	110.5	110.7	111.0	111.2
110°	123.7	123.8	124.0	124.1	124.3	124.5	124.7	124.8



TEST NUMBER: P332898-927

CATALOG NUMBER: S124RDIP-S575D365U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	137.5	137.5	137.4	137.6	137.8	138.1	138.3	138.6
115°	158.1	158.3	158.4	158.4	158.4	158.4	158.4	158.4
117.5°	178.9	178.9	178.9	178.8	178.8	178.8	178.8	178.7
120°	191.7	191.9	192.0	192.0	191.9	191.7	191.6	191.5
122.5°	204.4	204.5	204.5	204.5	204.4	204.3	204.1	204.1
125°	222.1	222.3	222.4	222.6	222.7	222.8	222.8	222.8
127.5°	239.7	239.6	239.6	239.6	239.6	239.5	239.4	239.4
130°	250.4	250.5	250.6	250.6	250.6	250.6	250.6	250.6
132.5°	260.9	261.0	261.1	261.1	261.0	260.9	260.9	260.9
135°	275.4	275.6	275.7	275.8	275.9	276.1	276.2	276.3
137.5°	289.4	289.5	289.6	289.7	289.6	289.6	289.5	289.5
140°	297.9	298.2	298.3	298.5	298.6	298.6	298.7	298.7
142.5°	305.9	306.1	306.2	306.3	306.3	306.3	306.3	306.3
145°	317.3	317.4	317.4	317.5	317.7	317.8	317.9	318.1
147.5°	327.3	327.4	327.4	327.5	327.6	327.6	327.6	327.7
150°	333.7	333.7	333.7	333.7	333.8	333.9	333.9	334.0
152.5°	339.3	339.4	339.5	339.5	339.5	339.5	339.5	339.4
155°	346.8	347.1	347.3	347.4	347.1	347.0	346.8	346.6
157.5°	353.3	353.6	353.9	353.9	353.6	353.3	353.0	352.7
160°	357.4	357.8	358.1	358.1	357.8	357.4	357.0	356.6
162.5°	360.8	361.2	361.6	361.5	361.1	360.7	360.2	359.8
165°	365.5	366.0	366.5	366.5	365.9	365.4	364.8	364.2
167.5°	369.0	369.6	370.0	370.0	369.4	368.8	368.1	367.6
170°	371.1	371.6	372.1	372.0	371.5	370.8	370.2	369.6
172.5°	372.5	373.0	373.4	373.4	372.7	372.0	371.4	370.7
175°	374.1	374.6	375.2	375.1	374.3	373.6	372.8	372.1
177.5°	374.7	375.1	375.5	375.3	374.8	374.1	373.6	373.0
180°	374.3	374.3	374.3	374.3	374.3	374.3	374.3	374.3

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